

ABSTRACT

There are provided a recording material for holograms characterized by low corruption of recorded data with time, a manufacturing method thereof, a recording medium for holograms, a hologram recording method and a hologram reproduction method. The recording material for holograms of this invention comprises a metal oxide porous body provided with an oxygen donor substance in the pores. In the recording material for holograms, recording is accomplished by increasing the oxygen content of the metal oxide porous body with oxygen from the oxygen donor substance produced upon irradiation of recording light. The irradiated sites undergo no further alteration even with additional light irradiation, and the heat-induced volume fluctuations are negligible. The recording material for holograms exhibits reduced corruption of recorded data with time when subjected to repeated reproduction or when the recorded medium is stored for long periods.